

**REMARKS**

Reconsideration of the rejections set forth in the Office Action mailed January 16, 2004, is respectfully requested. Claim 1 has been amended. Claim 3 has been canceled. Claims 1-2, 4-5, 15-30, and 32-33 remain pending. Support for the amendments can be found in the specification at, e.g., page 6, lines 28-31; page 10, lines 9-17; and claim 31. Therefore, these amendments have been made without the addition of new matter.

**35 U.S.C. § 112**

Claims 1-5, 15-30, 32 and 34 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the examiner alleges that the scope of the above-listed claims wherein a 0.1, 0.2, or 0.4 current density is present with any generic electrode other than the PtSi electrode contains new matter. Without conceding the propriety of the rejection, applicants have amended claim 1 to specify that the “*microelectrode comprises platinum silicide (PtSi)*.” Therefore, applicants respectfully request withdrawal of the rejection and reconsideration of the claims as amended.

**35 U.S.C. § 103**

Claims 1, 2, 4, 15, and 31-33 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Bosley et al (EP 0,226,470). The examiner apparently takes the opinion that, although this reference lacks testing of any current density values for which the permeation layer is stable, the reference describes structures that would be expected to have the same stability character as the instant invention.

Without conceding the propriety of the rejection, applicants have amended claim 1 to specify that the “*microelectrode comprises platinum silicide (PtSi)*.” As explained in the amendment and response submitted on October 8, 2003, applicants submitted therewith a Declaration by Theodore M. Winger. Dr. Winger is an inventor on the present application and an expert in the field of microarray technology. In his Declaration, Dr. Winger explains that the fact that the permeation layer is stable at a current density of at least  $0.10 \text{ nA}/\mu\text{m}^2$  for the microchips wherein the linker molecules were attached to the electrode by vapor deposition. (Winger Declaration, ¶ 4). In addition, he states that it was entirely unexpected that vapor deposited microchips would have superior stability characteristics in comparison to microchips where the linker molecules were attached to the electrode surface by a solution phase reaction. (Winger Declaration, ¶¶ 4-5). *See In re Soni*, 54 F.3d 746, 751 (Fed. Cir. 1995) (“when an applicant demonstrates *substantially* improved results ... and *states* that the results were *unexpected*, this should suffice to establish unexpected results *in the absence of evidence* to the contrary.”) Therefore, applicants respectfully request withdrawal of the rejection and reconsideration of the claims as amended.

For all the foregoing reasons, Applicants assert the claims are in condition for allowance. Favorable action on the merits of the claims is therefore earnestly solicited. If any issues remain, please contact Applicants' undersigned representative at (949)737-2900. The Commissioner is hereby authorized to charge any additional fees that may be required to Deposit Account No. 50-2862.

Respectfully submitted,  
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